

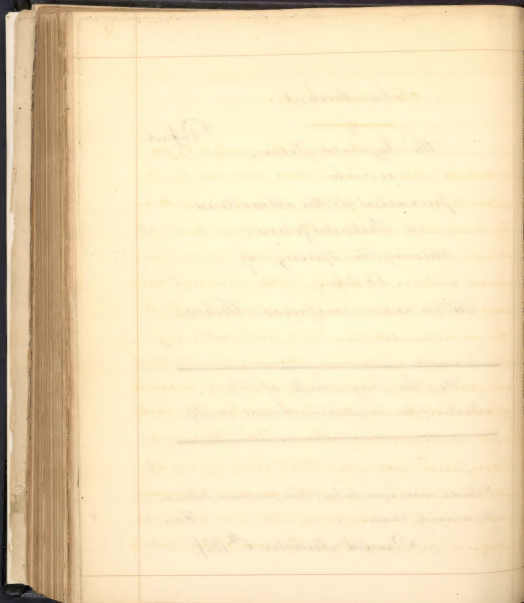
An Account
 of
 The Typhoid Fever;
 which
 prevailed at the Almshouse
 in Philadelphia;
 during the Spring of
 1824.

Written as an inaugural Thesis.

By Tho Lacey Smith of Pa.
 Member of the Philadelphia Medical Society.

*Pallida mors aequo pulsat pede pauperum tabernas
 Regumque turres.* —Kerl.

Presented November 6th 1824



An account &c.

In selecting this subject, for a medical thesis, I have been actuated by the interesting nature of the disease; as well as by a desire to avoid paths, which have already been well beaten by able and experienced writers. Possessing little personal knowledge, of the various maladies which affect the human frame, and just entering the Temple of Medical Science; the student in attempting to give a systematic account of most diseases, can but reach the words and sentiments of others. For these reasons, and believing that it is by an attentive observance of the various phenomena which accompany the rise and progress of disease; that the most important

part of our practical knowledge is to be gained; I have chosen to relate what I have seen, in preference to what I have read. In doing so, I cannot but express my acknowledgments, to the attending Physicians of the Almshouse, at that period Doctors Mitchell and Jackson, for the many interesting facts and suggestions I have derived from their discourses at the bed sides of the sick. The endeavours of the former gentleman especially, to diffuse information amongst the clasp were unwearied, and entitled him to the gratitude and esteem of all its members. The disease, of which I am to treat, appeared in the Almshouse during the month of December 1823, but it was not until the first of March following, that I had leisure to observe it with attention.

At this time it prevailed pretty extensively, especially in the Black^d lying in ward; a dirty and ill ventilated garret.

Before entering upon a detail of its symptoms and treatment, it may not be improper to make a few very brief observations upon its causes. This part of my subject, I must confess, I have undertaken with much diffidence; because its complete investigation would require both extensive observations, and matured judgement to form from them correct conclusions.

Of the Predisposing causes, very little need be said. They may be considered as the same, in general, with those of most other fevers of a typhoid nature.

The Remote cause appears to be some noxious matter or effluvia, arising from filth or crowded

The first thing I did was to
 go to the bank and see
 what the interest was on
 my money. I found it was
 very low, so I decided to
 put it in a different place.
 I went to the office and
 saw the manager. He told
 me that I could get a
 better rate if I put my
 money in a different
 account. I asked him how
 much I could get, and he
 told me that I could get
 a good deal more than
 I was getting now. I was
 very pleased with the
 offer, so I decided to
 take it. I went to the
 bank and put my money
 in the new account. I
 was very happy with the
 result, and I thought I
 had made a good thing of
 it.

did and ill ventilated places. Of its precise nature we have no adequate idea. It seems to be the same as that which sometimes causes such desolation in our Camps and Prisons. I shall not attempt to account for it, but merely mention such facts, as came under my observation.

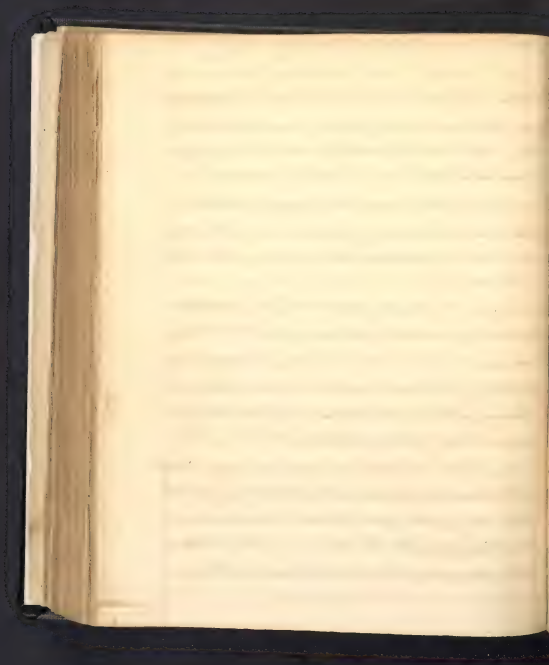
It was generally supposed that the disease was originally generated in the Arms house; but many patients were affected with it before they came in. Many, however, were attacked by it, who had not been out of the house for months. But if the affection really originated in a ward containing sixty or seventy persons, it would be reasonable to conclude, that as its cause would be constantly in operation, it would attack nearly their whole number. This, however was not the case; in the mens

1840

I have the honor to acknowledge the receipt of your letter of the 10th inst. in relation to the above named matter. I have the honor to inform you that the same has been forwarded to the proper authorities for their consideration. I am, Sir, very respectfully,
Your obedient servant,
J. H. [Name]

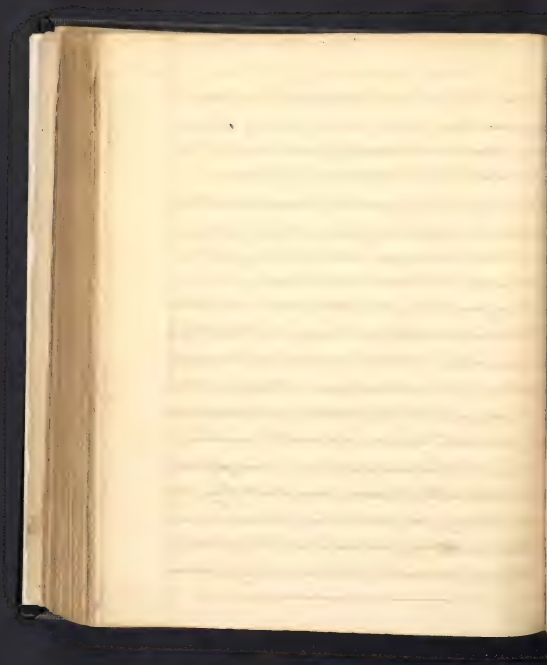
Medical ward, to which, I allude, I never saw more than eight with the disease at the same time and generally there was not so many. It was also observable that they come all in one part of the ward, and nearly all the cases which obviously originated in the ward, were patients, whose beds were in this part of the room.

I believe the disease was not propagated under any circumstances, except to those who were accustomed to reside almost constantly, the impure air of the wards, containing those affected. It is true that two or three of the gentlemen in the Commons House, who resided in a clean airy part of the building were attacked by it, but their duties obliged them to be almost constantly with the sick. Of the students who attended the institution, although



many of them were in the habit of spending an hour or two in the wards almost every day, and minutely examining the patients; I believe not one was affected.

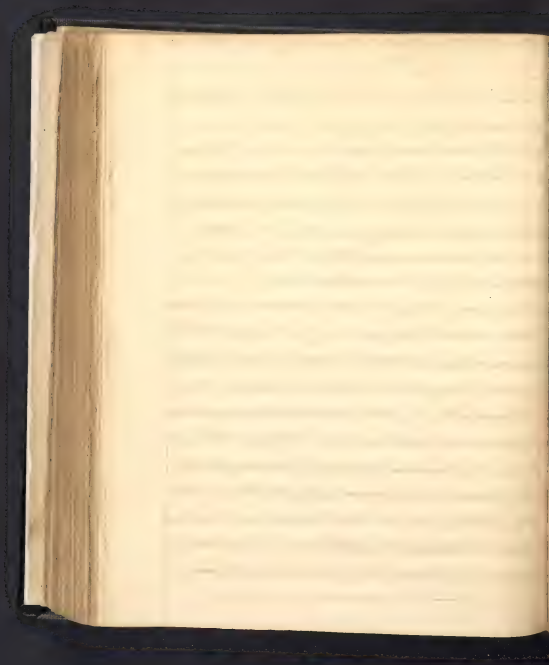
From these facts, and the precautions taken to keep the wards clean, by frequent whitewashing and scrubbing, I am inclined to believe that the disease does not originate in the atmosphere, but that the air is sufficiently impure for its propagation, to those who are exposed for a long time together to its influence, in its immediate vicinity. What the nature of its original ^{cause} is, I do not know. The most common account of patients who were brought into the house with the fever, was, that they had been living on some time previous in damp and dirty cellars; and it is probable that some noxious effluvia arising from



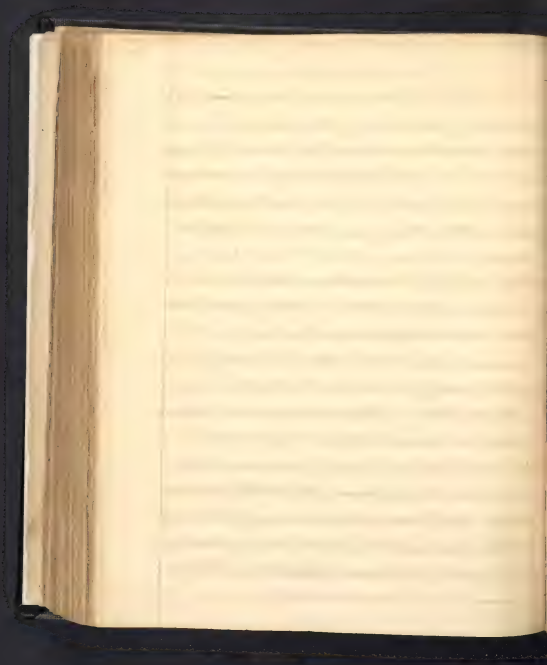
Such places, is the cause of this destructive malady.

Of the Proximate cause, I shall say but little. I believe this to be a disease sui generis , the remote causes whatever they are, producing a specific action on the human system, the precise nature of which is unknown.

It appears to differ from genuine Typhus Fever, in not being contagious, except to persons constantly residing in the impure and vitiated atmosphere, in which it prevails. In other respects its resemblance to genuine Typhus was strong, though I never saw an oozing of blood from the Gums, or indeed hemorrhage from any part, in its last stages, which is said to occur so often in that disease. I think Dr Jackson's opinion

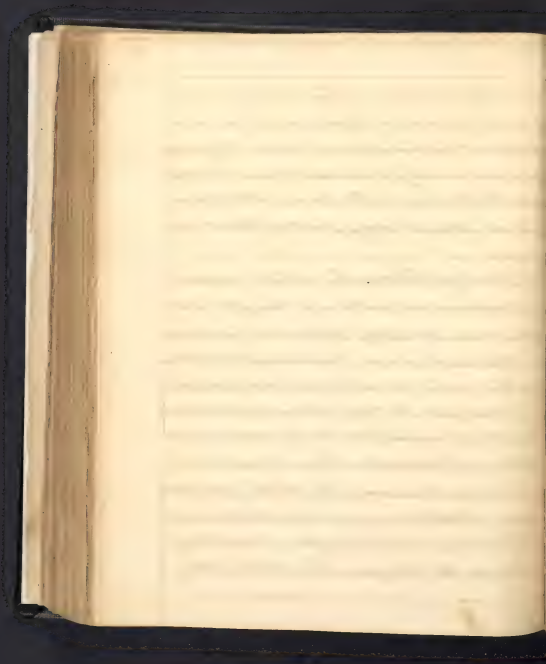


was, that the proximate cause was inflammation of the basis of the brain. Dissections sometimes presented to us a turgid appearance of the membranes, and effusions of serum; but is it not problematical whether these were causes or effects. Besides, allowing them to be causes, they are by no means decisive evidence of inflammation? Experiments have been repeatedly made by eminent men, which prove that healthy animals may be bled to death, and yet all these appearances, will sometimes be found upon dissection. One of the reasons which induced Dr. Jackson to suppose, that the basis of the brain was particularly the seat of the disease, was, that the organs of sense were seldom affected. This was



generally true, but in one case there was complete deafness. Upon dissection these marks of inflammation, if such they may be called were by no means found confined to the basis of the brain, but appeared in almost every part of that organ.

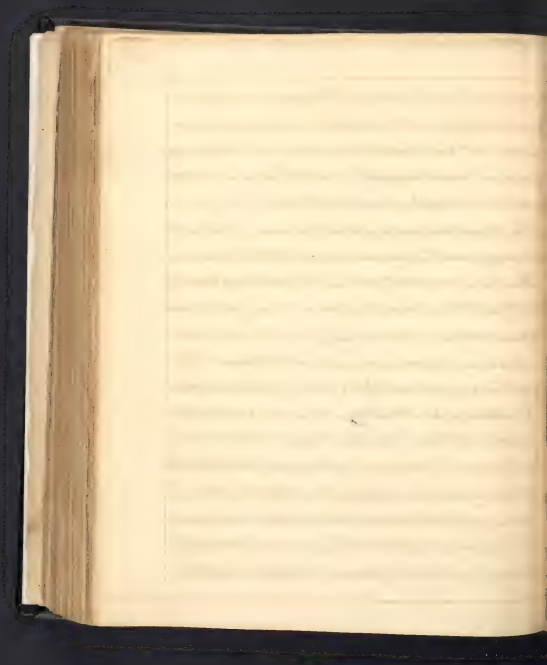
Of the Symptoms. The attack commonly commenced with a feeling of languor and debility, followed by pain in the head, back, loins, and sometimes in the joints; or as the patients commonly expressed it "all through the bones"; sometimes accompanied by nausea, and sickness of stomach. These symptoms were soon succeeded by chills, sometimes severe, at others scarcely perceptible, and at this time a whitish fur was observable on the tongue. This state of things



did not last long. The chills were succeeded by a hot parched skin, and a pulse at first small, hard and quick, gradually becoming as the disease advanced, weak, frequent and tremulous.

The countenance soon became of itself a sufficient prognostic of the disease.

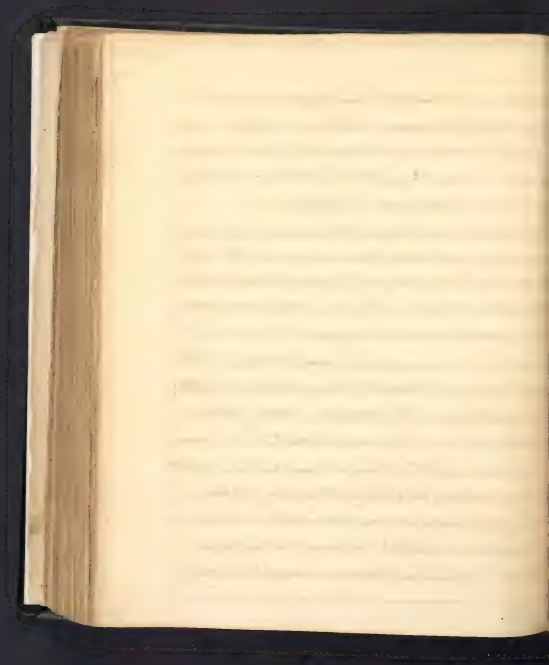
The face was not shrunk and pallid, but rather bloated, and of a yellowish brown colour, becoming as the disease advanced, venous red. The whole appearance was listless, the eyelids either partially or wholly closed, and the vessels of the Tunica Conjunctiva injected with venous coloured blood, the whole eye having much the appearance of that observed after a debauch. The lips were pointing, and partially covered with the same black matter



which now encreased the tongue and teeth.

Frequently, there was also a convulsive twitching of the corners of the mouth, producing a motion resembling that of a person volving a ball about between his teeth.

The patient in this stage of the disease, would commonly lie upon his back, and there was a constant tendency to slip down towards the foot of the bed. The knees sometimes drawn up, sometimes extended, and the extremities agitated by various convulsive motions. The right arm, appeared to me to be particularly affected in this manner; being often raised up, and pushed about in various directions. If the disease ran on to a fatal termination, the strength of the system was gradually exhausted; the discharges by urine and stool, became involuntary, and in some instances resembled muddy



water, so that it was even difficult to distinguish the one from the other. Petechial spots appeared on various parts of the body, which enlarged and ran into each other; the extremities became cold, Thicough came on, a partial clammy sweat appeared, the breathing became short, labourious, involuntary and cold, and death finally terminated the scene. This commonly happened on the seventh or ninth day.

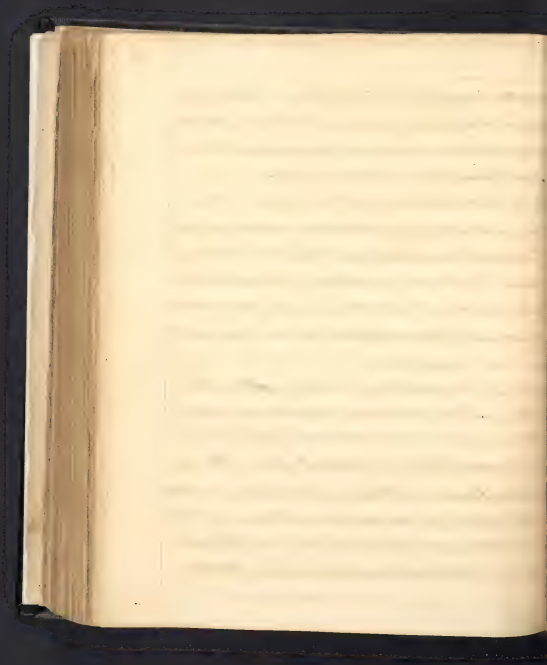
During the whole course of the disease, the clearness of intellect preserved by the patient was remarkable. Though lying with nearly all the symptoms above mentioned, apparently comatose and at the very gates of death, yet when spoken to, they would answer clearly and rationally. Sometimes they said, they felt pain in the head, but more commonly,



would say they felt no pain, although upon being touched about the abdomen or epigastric region, they manifested symptoms of great sensibility.

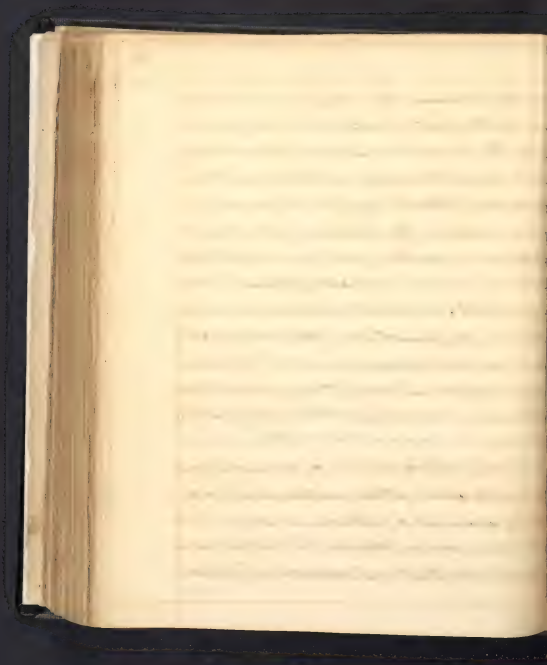
But the disease did not allways pursue the exact course mentioned above. Some times in the latter stages the abdomen became tympanitic, and as it indicated torpor and want of action in the alimentary canal, it was regarded as a very unfavourable symptom.

During the months of February, March, and April, there occurred sixteen or seventeen cases, which were supposed by Dr Jackson to be essentially different from the common fever. It commenced with a violent pain in some one of the joints as the knee, ankle, or toe, and the fever which followed was said to be more



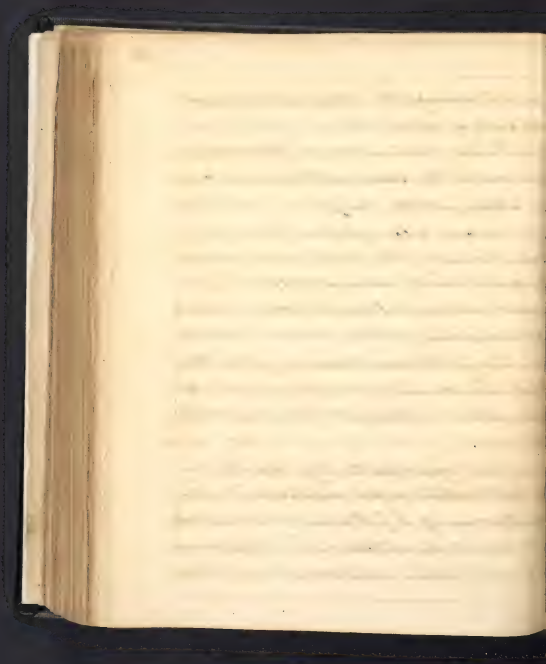
violent when this case occurred in one of the small joints, as the toe. Soon after, the patient was attacked with violent symptoms of fever, and on the second or third day the skin was found covered by innumerable small blotches, resembling at first light flea bites. These cases were all of them extremely fatal. I do not however consider them as different from the others, except in malignancy, or the blotches which appeared, any thing more than petechiae, occurring at an early stage. It may be observed, that as the disease advanced, these petechiae enlarged and ran into each other, untill some of them exceeded a dollar in size.

Another form in which the disease appeared was that of Pneumonia Typhoid
(des



des, and during the latter part of March and first of April, this was not uncommon. The countenance in these cases, had much the same appearance as in the others, but the tongue was covered by a cream coloured fur. There was severe pain in the breast, accompanied by cough, and a pulse, small, hard, frequent and irregular. The voice was not natural, being either hoarse or shrill; and indeed the countenance of the patient and sound of his voice, were of themselves sufficient to indicate the disease.

I had but one opportunity of witnessing a post mortem examination. It was in the case of J. Gallaher who died with the usual symptoms. The blood vessels of the brain were much injected,



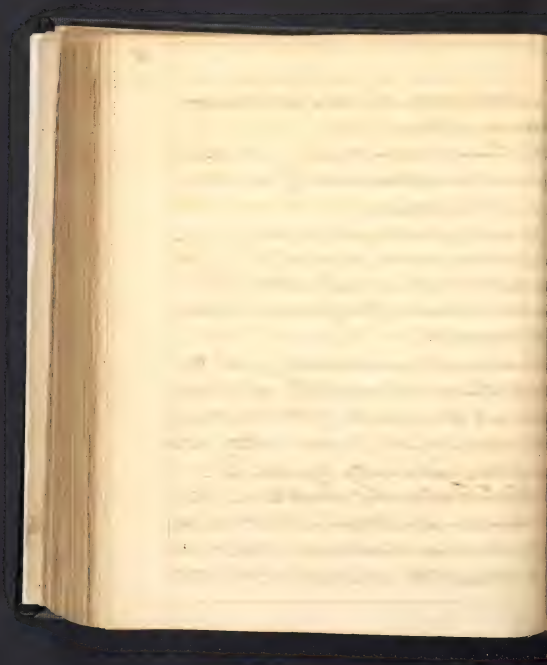
and the ventricles, were filled with bloody serum.

The lining membrane of the stomach presented appearances of considerable inflammation.

The left ventricle of the heart was enlarged to double the size of the right, and filled with uncoagulated blood, - which, however, coagulated as soon as removed.

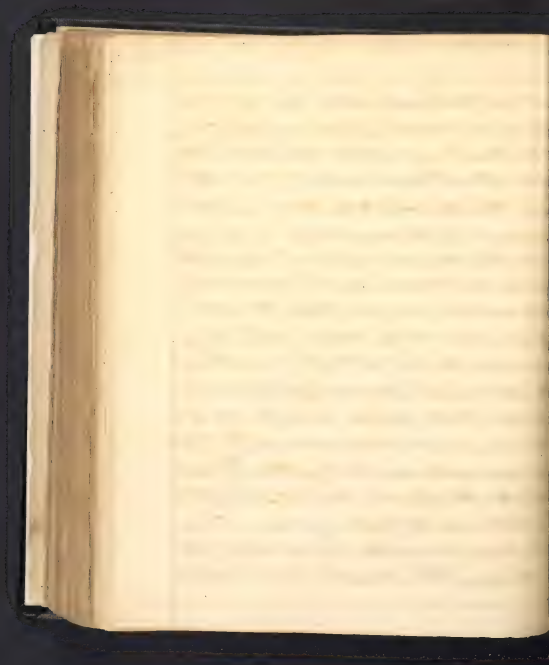
The liver appeared healthy, but the gall bladder was enormously distended, and the passage of the bile through the ductus Cysticus, completely obstructed, apparently by spasm.

The Treatment, adopted in the house was simple; and as it was nearly the same in all cases, I shall merely attempt to illustrate it, by the



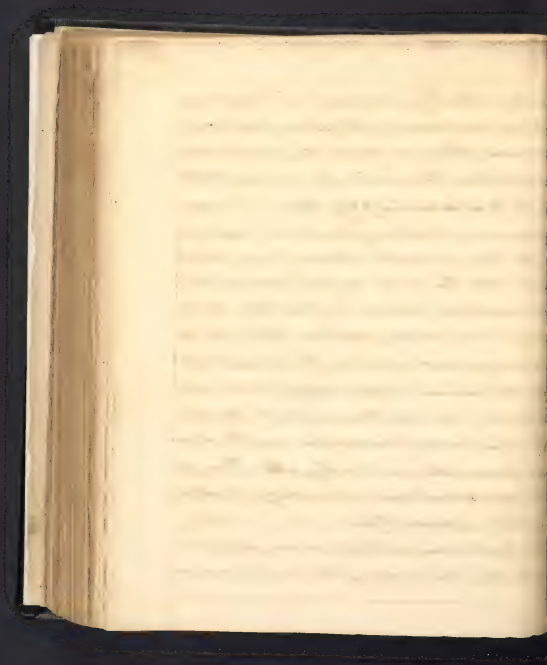
following one. It was that of Leach
 aged about 35. This man came into
 the Clinical ward on the 2^d of May
 and his symptoms were then as fol-
 lows. His pulse was full, frequent, soft
 and easily compressed. Much nausea
 and sense of weight about his stom-
 ach, with pain in the head, wild
 appearance of the eyes and stupor.
 His skin hot and dry, and tongue
 covered with dark brown fur. He was
 ordered an emetic, and after its opera-
 tion a mercurial cathartic, and
 also dry cups to the head. This relie-
 ved the head for the time, but on
 the next day the symptoms again
 returned. A Blister to the back of
 the neck was then ordered and he was
 put upon the use of Thermes miner
 (at

1/2 and Calomel - Ther. Min. gr. v col.
 some gr. i to be given every two hours.
 The stupor was again relieved, but on
 the 4th, it again returned. He also
 on this day complained of some
 sickness of the stomach. To obviate
 this the Therme. Min. was reduced to
 gr. iij and there was much debility
 the Calomel was omitted. His head
 was ordered to be shaved and dry
 cupped. On the 5th the patient was
 much relieved; treatment continued.
 On the 6th the bowels were found to be
 costive, and a dose of Magnesia and
 Epsom salts operated with very good
 effect. The Therme. Mineral was redu-
 ced to doses of 1/2 gr. every hour. This
 treatment was continued until the
 7th, when the symptoms were much

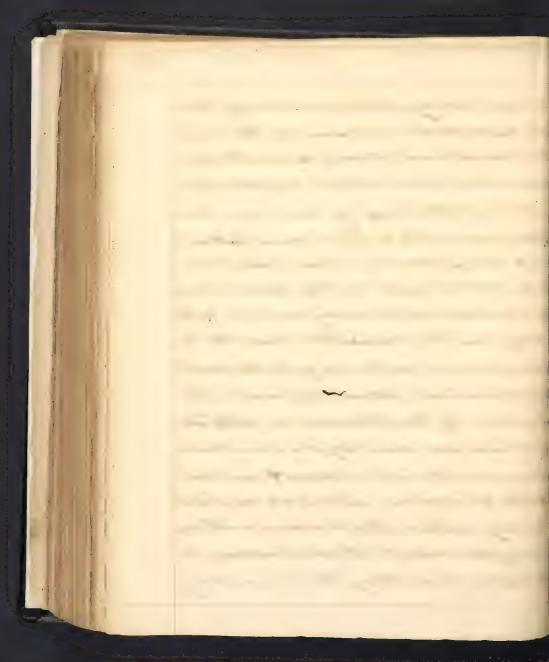


mitigated. The tongue had become clean and moist, the skin soft and relaxed, the eyes natural, mind composed, and the pulse full and soft but preternaturally slow. He now commenced taking bark in infusion but this did not appear to do much good. On the next day he was ordered a wineglass full of Porter, three or four times a day and a light nourishing diet. Under this treatment he continued gradually to mend. This was one of the mildest cases. The treatment however was the same in principle, in nearly all, though it was sometimes necessary to stimulate vigorously.

In that form of the disease which attacked the Lungs, the treatment was

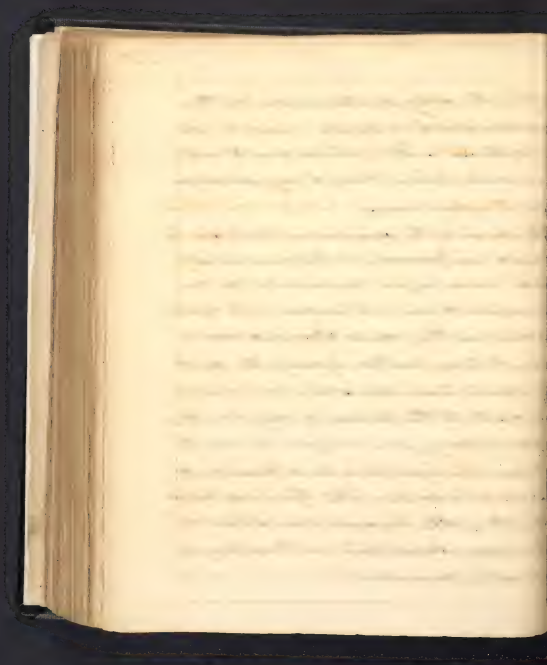


much more surely different. Unless upon
 the immediate accession of the disease
 the lancet was seldom admissible,
 and indeed was seldom employed;
 but local bleeding by cups was found
 of much service. These were followed
 by a large blister which was to be
 repeated as fast as the preceding
 one healed, until every vestige of the
 cough had disappeared. When the bli-
 ster failed in producing its wonted
 effect, which often happened, the
 application of cantharides in the Tur-
 pentine was employed. Sometimes
 however, it was almost impos-
 sible to produce external irritation
 by any means, the disease within
 being so violent, that it appeared
 entirely to destroy the susceptibil-
 (ity)



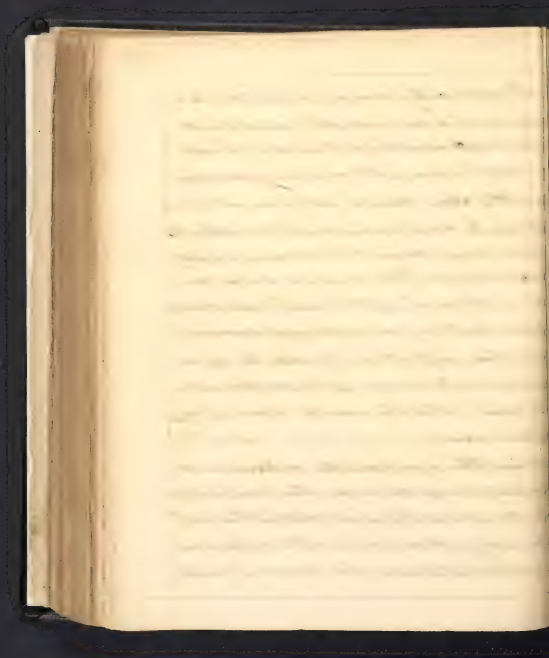
ity of the skin, to the action of the most violent irritants which could be applied. This was a most unfavourable, and I might perhaps say, fatal symptom.

This form of the disease, was not so rapid in ^{its} course, as those which have been before described. The case I recollect in particular. He remained in the men's clinical ward about three weeks, during the most of which time, his skin was unsuceptible to the action of any kind of vesicatory, and before his death he was reduced to a mere bundle of skin and bones. The general treatment of the disease, was such as has been described in treating of its other varieties.

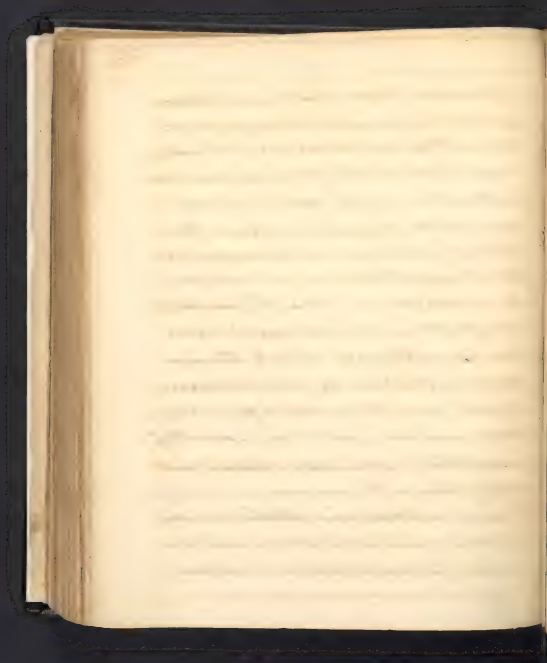


It now only remains for me to make a few general remarks on the treatment of this disease, and have done. It was a very fatal one in the almshouse, but I do not think it would have been ^{so}, could the patients have been moved to a more healthy situation. The impure air of a crowded ward, the noise and bustle occasioned by so many persons, and the neglect or ignorance of uninterested nurses, all contributed to render the chance of recovery very precarious.

When the Tympanitic abdomen occurred, large doses of the Turpentine Elixir, were thought to be the best remedy, combined with externalomentations. As far as I could

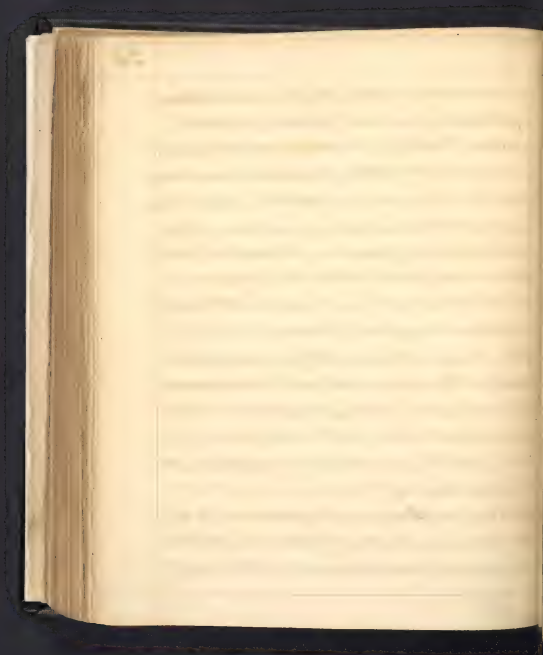


judge from the cases which I have seen of this disease, the simplest treatment succeeded best. I think one of the greatest faults in our treatment of this class of diseases, is our desire to do too much. We see the unhappy patient labouring under a most violent disease, we startle at his danger, and like the unskillful mother, who always crams down sweet things to hush the pain and still the cries of her children; so often I fear the unskillful physician, in his zeal to do "something" overwhelms exhausted nature, and destroys the last remains of vitality. If we take a cool and collected view of the state of the patient; we find the system labouring under a violent



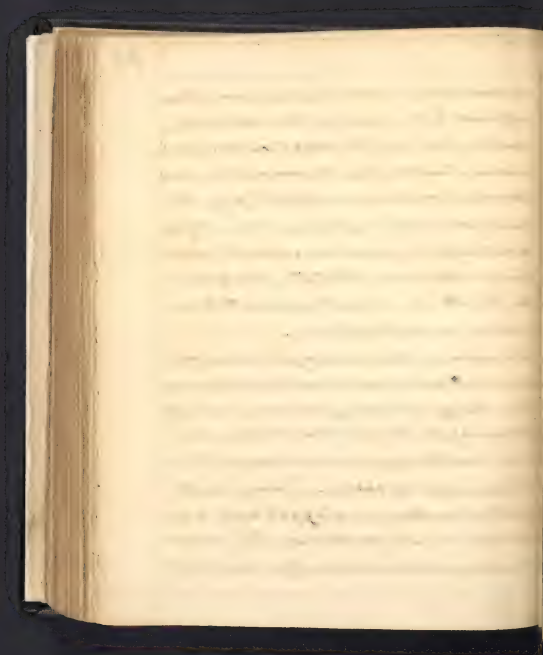
and morbid action, the precise nature of which we do not know; but we know that this action tends to subvert some or all of the natural functions. Nature, ever on the alert to watch and prevent the entrance of disease; calls forth all her resources to combat with the enemy. But there are some diseases which nature alone is not capable of defeating, and her violent efforts like the struggles of the condemned malefactor only accelerate her doom. It is the part of the physician, to cut the noose which binds her, and her own efforts can then be exerted with advantage.

There is, as Darwin observes, but a certain quantity of sensorial power in the system; and this quantity

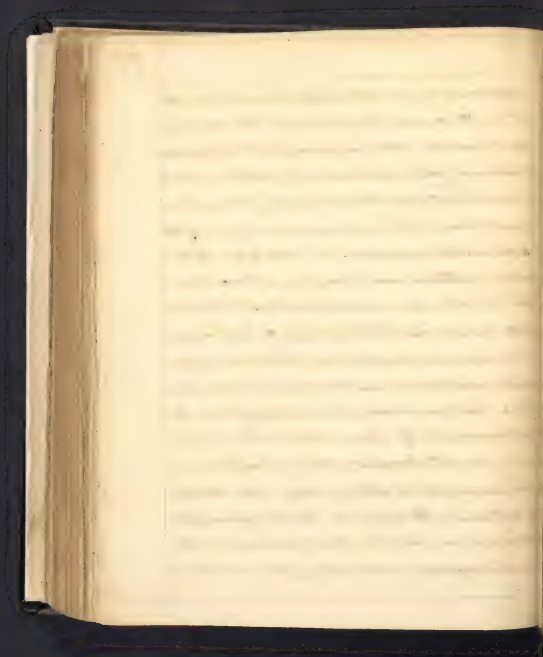


ing perhaps, is not much more than sufficient to supply the natural wants. It is by this vital or sensorial power, that nature carries on her functional operations in health, by this her organs are repaired, when altered or destroyed by disease; and it is upon this vital power, that the physician must act, in order to prevent or subdue morbid action.

The human frame may be compared to a vast and complicated machine, consisting of many organs, each performing different operations, and each liable, by various causes to be thrown out of order. If any part of its structure is clogged and obstructed in its motions, the whole machine moves heavily, and un-



repaired by a skillfull architect
 at last ceases to go. But the omni-
 potent power which formed the animal
 machine also endowed it, with a vital
 principle ^{capable} of sustaining all its natural
 functions, and repairing many of its
 accidental injuries. In old age the
 body withers and decays, because
 the period has arrived when the vi-
 tal power has been nearly all ex-
 spent; and no longer exists in suffi-
 cient quantities to carry on vigour-
 ously the operations necessary for the
 continuance of life. What this power
 is we do not know, and indeed it is
 our business, to study only its mode
 of action. It appears to be generated
 and furnished to the system as its
 wants require, and may be carried



from one part of the system to another leaving some parts even destitute in order to act more vigorously upon others. Patients, in many diseases, bear depletion much better than in health, and this is commonly ascribed to the stimulus of the disease. But in fact, disease is not a stimulant, ~~but~~ its presence calls forth the vital powers to repel it, and it is this,

which supports the system under the circumstances mentioned.

Thus also in wounds, when there is loss of parts, it is in this manner they are restored. Nature appears to concentrate all her forces in the neighbourhood; the parts around become irritable and painful, granulations shoot out, and final
(by

Handwritten text in a cursive script, likely from a 17th or 18th-century manuscript. The text is arranged in approximately 20 lines, though the handwriting is significantly faded and blurry, making the specific words illegible. The script appears to be a form of early modern cursive. The page is aged and shows some staining, particularly along the left edge where the binding is visible.

by the whole becomes repaired. But if the wound is very extensive, nature alone is not able to repair it. If the edges are too far apart, she throws out granulations in vain, they either suppurate and slough off or become diseased, and if unassisted she goes on struggling until all her excitement becomes wasted and life gradually extinct.

Here then we see that the powers of Nature are limited and that she acts blindly; for when it is impossible for her to succeed in her object, she goes on struggling still more violently though to her own detriment. And here also we see that it is by placing the object to be attained, within the limits of the power of Nature that the Surgeon or Physician becomes

Handwritten text in a cursive script, likely from a 17th or 18th-century manuscript. The text is organized into several paragraphs, with some lines indented. The ink is dark, and the paper is aged and slightly discolored. The handwriting is fluid and characteristic of the period.

useful. We do not stimulate the excitement to more vigorous action, or rather endeavour to moderate it, and is it more reasonable, that in all low forms of fever, we should endeavour to goad on Nature, when perhaps the fever itself is owing to her already too violent and fruitless exertions.

I allude here only to the too indiscriminate use of stimulants; judiciously applied, they are highly useful and necessary.

Thus we see that when disease is caused by disorganization of parts, art cannot eradicate it, but Nature can eradicate the disease in many instances and art can make the number greater. She does this as before stated, by leaving the way for the action of

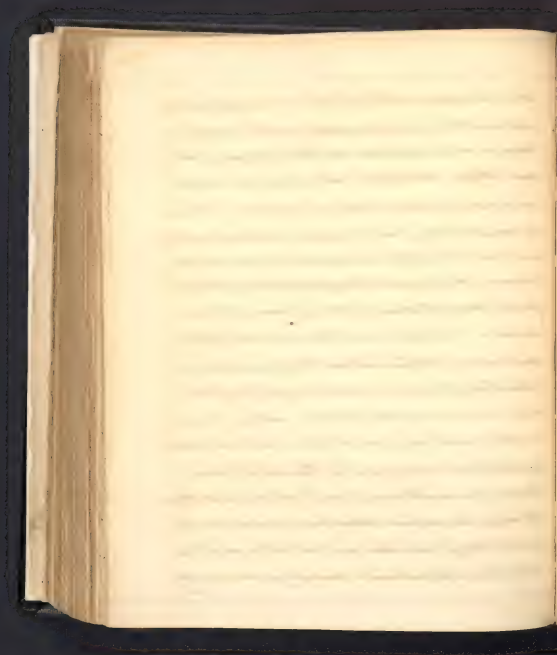
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the former. It may not ^{be} uninteresting, in this place, to endeavour to pursue the operations of Nature a little further.

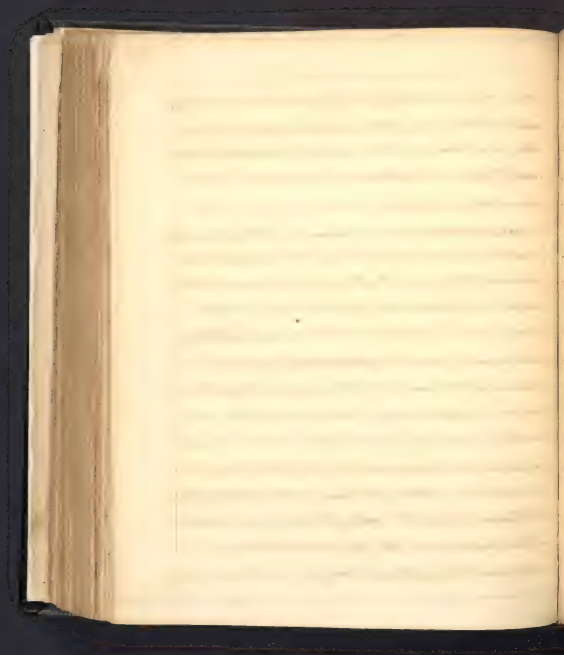
I have in one place ascribed death, to the gradual wasting of excitement or Sensorial power; but it may also be owing to other causes. Though Nature produces or manufactures, the various materials with which she has to operate, in performing the functions above mentioned, yet it is necessary, that the machine upon which she has to produce them, should be in a sufficient state of perfection, or she cannot obtain them. We here see her performing two distinct general operations. She applies her power first, to form materials, from the resources, which are supplied her from without,



and labours with them to supply the deficiencies, occasioned by the waste, decay, and injuries of the body. Without these materials she can no more perform these latter operations, than the carpenter can build houses, without wood. Thus in cases of violent disease, disorganising vital parts, death may take place from this cause. Perhaps in the majority of instances, death takes place from both these causes operating together, and indeed in most cases, they are so intimately combined, that it is difficult to distinguish them. Sometimes, for instance, parts or organs may be injured, which nature succeeds in partially repairing, but the materials they afterwards supply are deficient.

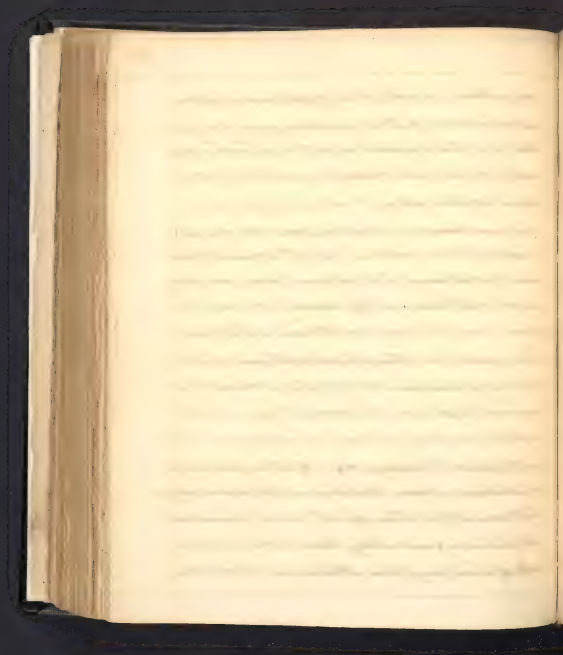


-ent in quantity, or ^{or} of a bad quality; and in this case, the parts upon which they are engrafted must become unhealthy. When this disposition has once taken place, especially in organs of Nutrition; it is obvious that unless arrested it must extend its self; and I might say at the rate of arithmetical progression, for as more organs become composed of these unhealthy materials, more unhealthy matter is given out, until the whole system becomes gradually disorganised, and nature can support the contest with disease no longer. Upon this premise we might explain the progress of Lues Venerea, Scurfula, and many other diseases. The maldies become chronic, and the patient may exist for a



long time, but his system is disordered, and unless the disorder can be checked by the powers of art, becomes gradually more and more so, untill vitality is worn out.

The functions of Nature are so diversified and various, that it would require a volume, to follow her, in all her operations. My limits do not allow me to pursue them further here, and for the speculations, I have already ventured to make, I must beg indulgence. I cannot consider, but that it has been by a close and faithful observance of the operations of Nature upon the human economy; that most of the great improvements which have gradually been made, in the arts of Surgery and Medicine have been



suggested. The human frame is one of so complicated a structure; the functions performed by its numerous ^{organs are} diversified; and above all, the operations of the spirit which governs and animates its motions so mysterious; that although the first talents of every age have been employed in its contemplation, it has never been perfectly understood. Perhaps it never will be. Yet let us not be discouraged, for if they have not unravelled all the mystery, with which animal life is surrounded, yet almost every age has revealed to us some new law, or thrown light on some formerly obscure function, which formed the basis of a more rational practice, than before existed,

and finally brought the healing
 out to its present state of perfection.
 But notwithstanding much has been
 done, much still remains to do,
 and it is reasonable to hope, that by
 watching attentively the operations
 of Nature in health and disease,
 much will still be done.

Upon the whole I cannot better con-
 clude, than by quoting the words
 of the Poet when he says —

"The proper study of mankind, is man"

Finis

The first thing I noticed
 when I stepped out of the
 car was the heat. It was
 a relief after the cool
 air of the car. The sun
 was shining brightly, and
 the air was thick with
 the smell of flowers. I
 walked slowly, taking in
 the sights and sounds of
 the city. The people were
 dressed in light clothing,
 and the music was loud
 and cheerful. I felt like
 I had entered a new world.

The
 end

For January 1880

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